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| 10/694,823 | 10/29/2003 | Shinichiro Fukuoka | N0520.0047/P047 | 6755 |

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EXAMINER

SHIMIZU, MATSUICHIRO

ART UNIT PAPER NUMBER

2612

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/694,823

Applicant(s)

FUKUOKA, SHINICHIRO

Examiner

Matsuichiro Shimizu

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Amendment

The examiner acknowledges amended claims 1–16 and new claim 17.

The examiner withdraws the objection to claim 3 in view of new prior art of ISO/IEC15693–3.

Response to Arguments

Applicant's arguments with respect to claims 1–17 have been considered but are moot in view of the new grounds of rejection.

Therefore, rejection of claims 1–17 follows:

Claim Rejections – 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1–17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. (JP2001199511) in view ISO/IEC15693–3 (693–3, copy right–2001).

Regarding claims 1, 9 and 13, Ikeda teaches a non–contact electronic tag 11 attached to library book 12 (Fig. 1, par. 024), wherein tag 11 stores tag ID (par. 0029) and inhibit or permission code (par. 0032, ‘o’ or ‘1’) to pass the security gate (par. 0038). Furthermore, Ikeda teaches tag reader reads tag memory, and verify the checked–out book and flag at the host computer 14 and open the gate 21f (Fig. 7, par. 0038).

But Ikeda is silent on a reference transmission section for transmitting information, which becomes a reference for determining response timing of the noncontact electronic tag attached to the object, to the noncontact electronic tag,

wherein a reference transmission section transmits information, which specifies a part of predetermined data stored in the noncontact electronic tag to the noncontact electronic tag so that the noncontact electronic tag transmits information which becomes a reference specified by the part of the predetermined data.

However, 693–3 teaches, in the art of anti–collision protocol, a reference transmission section (Figs. 7–8, page 14, inventory request format) for determining response timing (Figs. 7–8, page 14, EOF in inventory request format determines response time t_1 (section 9.1.1, page 18) by the tag)

of the noncontact electronic tag attached to the object, to the noncontact electronic tag,

wherein a reference transmission section transmits information, which specifies a part of predetermined data (Fig. 9, page 16, comparison of UID with predetermined data associated with MASK value; sec. 8.1, page 14, MASK and MASK VALUE specifies location in the stored UID of the tag) stored in the noncontact electronic tag to the noncontact electronic tag so that the noncontact electronic tag transmits information which becomes a reference specified by the part of the predetermined data (DSFID (sec. 4.3, page 6, DSFID)) determines format of UID in the Inventory response format (Fig. 12, page 23)) for the purpose of providing anti-collision scheme of providing inventory of a plural tags.

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a reference transmission section for determining response timing of the noncontact electronic tag attached to the object, to the noncontact electronic tag,

wherein a reference transmission section transmits information, which specifies a part of predetermined data stored in the noncontact electronic tag to the noncontact electronic tag so that the noncontact electronic tag transmits information which becomes a reference specified by the part of the predetermined data in the device of Ikeda as evidenced by 693-3 because such partial comparison provides efficient comparison with reduced collision, thus providing anti-collision scheme of providing inventory of a plural tags.

Regarding claims 2, 10 and 14, 693-3 continues, as claimed in claims 1, 9 and 13 to teach repetitive processing of changing a specification position in the specification data and again executing the interrogation communication processing upon detection of collision (Annex B, page 40, recursive processing upon collision, and going to next sub-address wherein new mask is generated (mask = address & mask) associated with changing a specification position).

Regarding claim 3, 693-3 continues, as claimed in claim 2, to teach a limitation condition (Annex B, coding section starting " for address", page 40, recursively processing address up-to $2 \times \text{sub-address-size} - 1$) is set for terminating repetition of the repetitive processing regardless of whether or not collision avoidance is accomplished.

Regarding claims 4-6, Ikeda teaches the passage radio communication unit executes the tag access processing (Fig. 7, par. 0038, security gate 21f) and article-unique data (par. 0029), inhibition of passage (Fig. 7, par. 0038, inhibition associated with security gate 21f), passage radio communication unit (Fig. 7, pars. 0037-0038, read device 21c and control 13).

Regarding claim 7, 693-3 continues, as claimed in claims 2, to teach a simple tag access processing (section 7.2.1, page 8, when address-flag is set to 1, request contains UID, and response will be matching UID if exist) of transmitting an interrogation signal to a plurality of noncontact electronic tags.

All subject matters except an application family identifier, wherein said application family identifier comprises lending processing data and return

processing data in claim 8 are discussed above with regards to claims 1 and 4. However, Ikeda teaches coding signal, wherein coding signal comprises lending processing data (Fig. 7, par. 0038, code associated with completion of lending out is set to "0" -gate opens) and return processing by coding signal to "1" (par. 0035). However, 693-3 teaches, in the art of anti-collision protocol, application family identifier (AFI) (sec. 4.2, page 3, AFI is coded on one byte, which constitutes 4 bits each) for purpose of providing four control flag options.

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include application family identifier (AFI) in the device of Ikeda as evidenced by 693-3 because such AFI parameter provides four control options in comparison to two control options of coding signal, thus providing more control features.

Therefore rejection of the subject matters expressed in claim 8 are met by references and associated arguments applied to rejection of claims 1 and 4 and to rejection provided in the previous paragraph.

Regarding claims 10 and 14, 693-3 continues, as claimed in claims 9 and 13, to teach collision avoidance scheme (sec. 9.1.4.1, page 20, wait for t_{nrt} and additional t₂ for subsequent inventory request when detecting collisions) or collision mitigation scheme wherein a plurality of noncontact electronic tags (sec. 9.1.4.1, page 20, collision associated with a plurality of tags) or pager device or noncontact electronic tags

Regarding claims 11 and 15, Ikeda teaches the article management method as claimed in claim 9, wherein the tag access processing is executed for the noncontact electronic tag attached to the article whose passage is inhibited (fig. 7, par. 0038, security gate 21f).

Regarding claims 12 and 16, Ikeda teaches a user radio electronic medium capable of identifying each user and storing user data to receive the user data from the user radio electronic medium (fig. 7, par. 0038, security gate 21f communicating with host computer 14 permit or inhibit the user from exiting).


All subject matters in claim 17 are discussed above with regards to claims 1-3, and therefore rejection of the subject matters expressed in claim 17 are met by references and associated arguments applied to rejection of claims 1-3.

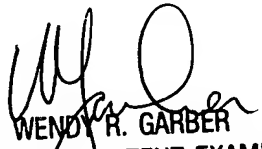
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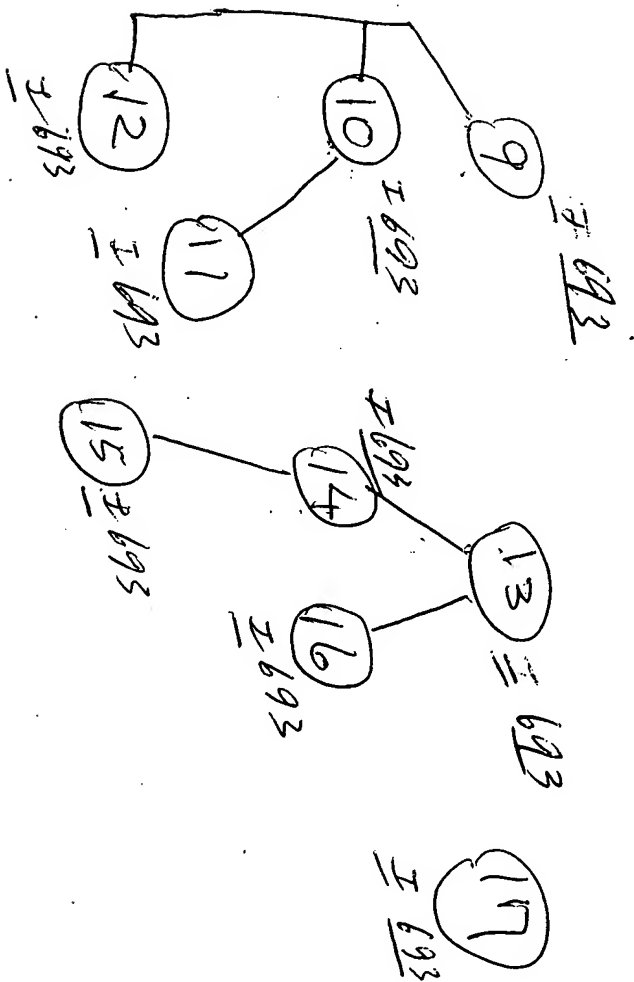
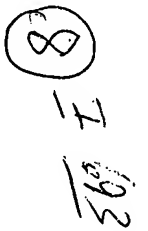
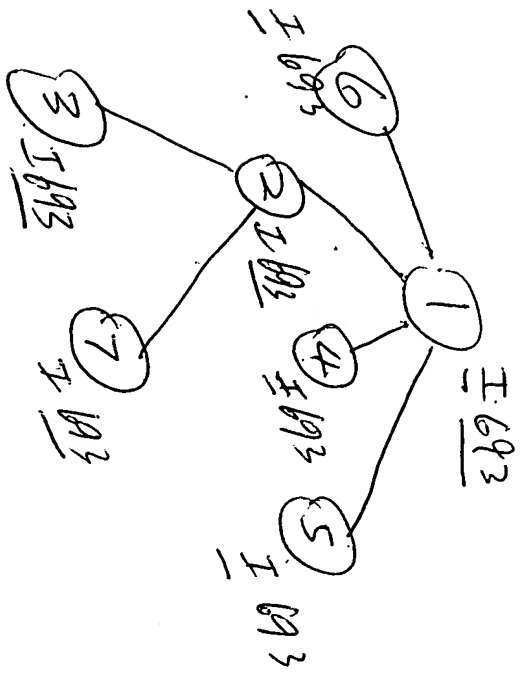
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matsuichiro Shimizu whose telephone number is 571-272-3066. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber, can be reached on 571-272-7308. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3068.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703-305-8576).

Matsuichiro Shimizu
April 24, 2006 


WENDY R. GARBER
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9/29/06
 4/29/06
 4/29/06